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AUTHOR Berman, Jeffrey S.: And Others
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ABSTRACT

Previous research indicates that social beliefs can act in a self-fulfilling manner, affecting responses to individuals and thereby constraining these individuals to behave in ways that spuriously confirm attitudes about them. The possible role of self-perception, i.e., whether targets of such self-fulfilling prophecies not only alter their behavior but also make corresponding changes in their perceptions of themselves was examined. Pairs of males engaged in an interaction after one of the two participants had been given either a negative or a positive expectancy about the other. Observers listening to recordings of the interactions perceived differences in those participants who were targets of the expectancy manipulation. However, the targets failed to report similar differences about themselves. Targets who interacted with interviewers having a favorable expectancy about them actually behaved in a more positive fashion than did targets who interacted with interviewers holding the opposite, negative expectancy. (Author)

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The Role of Self-Perception in Behavioral Confirmation

Jeffrey S. Berman, Joseph A. Burleson, and Ronald R. Austin

The University of Texas at Austin

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Correspondence concerning the paper should be addressed to Jeffrey S. Berman, Department of Psychology, The University of Texas at Austin, TX 78712.

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The Role of Self-Perception in Behavioral Confirmation

Social scientists have long noted that the expectancies of an individual can have an effect on subsequent events so as to confirm the initial belief. As early as 1948 Merton emphasized the action of these self-fulfilling prophecies. For example, he cited the case of a solvent bank failing because the investors believed the institution to be foundering and by their panicked withdrawal of funds they actually brought about the financial failure. Merton and other observers (e.g., Becker, 1973; Goffman, 1963; Scheff, 1966) suggest that such self-fulfilling prophecies may play an important role in the development and maintenance of social stereotypes.

In psychology much of the attention concerning self-fulfilling prophecies has centered on Rosenthal's (1969, 1976) well-known studies concerning "experimenter effects" in the behavioral sciences. Across a wide variety of laboratory situations Rosenthal and other researchers have shown that the expectancy or hypothesis of experimenters can have an unintended influence on the behavior of their subjects. More recently a number of other laboratory studies have demonstrated that expectancies of one subject can have a self-fulfilling effect on the behavior of another subject (e.g., Jones & Panitch, 1971; Kelley & Stahelski, 1970; Snyder, Tanke, & Berscheid, 1977; Snyder & Swann, 1978).

Such research clearly indicates that an initially false perception of another person can affect behavior directed toward that

individual, elicit expected behavior, and thereby confirm the original belief. However, such a process raises an additional intriguing possibility: Are the perceptions of the target individual altered such that he or she also comes to believe the original untrue perceptions? According to Bem's theory of self-perception (Bem, 1972; Nisbett & Valins, 1971) people infer information about themselves from their external behavior in much the same way as an outside observer. Since the experimental evidence already demonstrates that the expectancy of one individual can unintentionally alter the behavior of another, it may be that such behavior changes are accompanied by comparable changes in self-perception.

Presently, however, there is no direct experimental evidence that self-fulfilling phenomena extend to changes in self-perceptions. For example, in one recent study Snyder et al. (1977) were able to demonstrate that manipulated beliefs males developed about females they were to meet had a self-fulfilling impact on the behavior of these women. However, the researchers acknowledged that the self-perceptions of the women themselves remained unaffected by the expectancy manipulation (see Snyder et al., 1977, footnote 6). In later research Snyder and Swann (1978) do offer indirect evidence concerning self-perception changes. In this study individuals were induced to behave in a more or less hostile manner by interacting with someone who held a manipulated belief about them. Following the interaction the targets of the expectancy manipulation were asked

in either a situationally-biased or a dispositionally-biased fashion to account for their behavior. Only when the target individuals were encouraged to attribute their behavior to dispositional causes did the behavior persevere in a second interaction. Although these results suggest that target self-perceptions can mediate the occurrence of confirming behavior, the evidence is less than ideal, since self-perceptions were never directly assessed but only inferred from subsequent behavior.

The aim of the present study, therefore, was to examine more directly the possible role of self-perception in the occurrence of a self-fulfilling prophecy. In the study pairs of previously unacquainted males engaged in a brief conversation structured to resemble an interview situation. One member of each pair, designated the interviewer, was given either a favorable or an unfavorable expectancy concerning the other participant, who thereby became the expectancy target. The interviewing context was adopted because previous research suggests the transmission of expectancies to be enhanced when the target of the expectancy is concerned about being evaluated (e.g., see Minor, 1970; Rosenberg, 1969) and perceives the holder of the expectancy to have higher status (e.g., see Rosenthal, 1976, chap. 14).

Following the interaction, the interviewer made judgments concerning the personality of the target and the target made parallel self-ratings about himself. Later, observers blind to the expectancy

manipulation made ratings of the target after listening to either a tape recording of the target's responses or a tape recording of the interviewer's questions. In this way, the experimental paradigm provided four different ratings: those of the interviewer, of the target himself, of observers who listen to the target, and of observers who listen to the interviewer. Differences between experimental conditions in these perceptions could therefore indicate whether a belief affects the perceptions and behavior of the person holding that belief as well as the behavior and self-perceptions of the individual who is the target of the belief.

Method

Participants and Observers

Sixty-eight male undergraduates from The University of Texas at Austin participated in the experimental interactions as part of the course requirement for their introductory psychology class. An additional 11 male undergraduates served as the observers who subsequently listened to tape recordings of these interactions.

Procedure for Participants

The participants were scheduled for the experiment in previously unacquainted pairs. To avoid any visual contact, the two participants in each pair met experimenters on different floors of the psychology building. They were immediately brought to separate experimental cubicles, each of which contained a microphone, a set

of headphones, and a small tape recorder. Each participant received his experimental instructions by playing the tape on the recorder.

Instructions to the Interviewer. The participant who had been randomly selected to serve as the interviewer heard the following introduction on his instruction tape:

> Welcome to our communications experiment. In this experiment we are interested in how well information can be obtained when an experimenter interviews a subject. Although you signed up for this experiment as a subject, you will actually be one of the experimenters today and you will be the person who interviews the real subject. We are asking you to serve as the experimenter in this study because we find that subjects are more comfortable being interviewed by an undergraduate.

Following this initial cover story the experimental manipulation was introduced. For interviewers in the negative expectancy condition (n = 17), the instructions continued as follows:

> Before going any further, we need to inform you of some very confidential material about the subject you will be interviewing. He signed up for this experiment on a different sign-up sheet than you did. His sign-up sheet was only for those who had taken a special psychological test during the third week of classes, the Bradford Personality Index. The Bradford Personality Index provides us with a very accurate picture of how well people get along with each other. The subject in the other room was selected for the present experiment because he scored very low on the test. People who score low on this test are the type of people who have poorly-developed social skills. In the more technical language of the test they can be characterized as negatively socialized personality types. That is, they are the sort of people who do not get along well with their friends or the people they meet. Typically, they would be called "loners." They have real problems functioning in social situations, whether familiar or unfamiliar. They are also characterized as the type of people who do not show their true selves very easily. That is, they make efforts to cover up their problems. Hence, it might be difficult to observe their negative personality qualities without looking closely.

For interviewers in the positive expectancy condition (n = 17), the pertinent information about the target was in the opposite direction:

> The subject in the other room was selected for the present experiment because he scored very high on the test. People who score high on this test are the type of people who have highly-developed social skills. In the more technical language of the test, they can be characterized as positively socialized personality types. That is, they are the sort of people who get along well with their friends and the people they meet. Typically, they would be considered people who have tremendous success functioning in social situations, whether familiar or unfamiliar. They are also characterized as the type of people who do not want others to feel bad because they themselves have such an easy time being around people. Basically, they would be called modest individuals and hence it might be difficult to observe their positive personality qualities without looking closely.

After hearing one of these two descriptions of the target, the interviewer was told that his task during the interview was to "have the subject describe the type of social relationships that resulted in his having such a low [high] score on the Bradford Personality Index." The interviewer was then cautioned to keep the interview on track and reminded that he was the only one who should ask questions during the interview. The tape ended by instructing the interviewer to spend the remaining time before the interview began writing down questions he would want to ask.

Instructions to the Target. While the experimental manipulation was being delivered to the interviewer, the target was in the other cubicle listening to a separate instruction tape. The aim of the target instructions was both to enhance the status of the interviewer

and to elevate the evaluation apprehension of the target. The instruction tape proceeded as follows:

> Welcome to our communications experiment. In this study we will be learning about you as a subject by means of an in-depth interview which will focus on your social relationships. This indepth interview is a session where you are asked a number of personal questions. These questions are designed to measure how you get along with your friends and the people you meet. On the surface these questions may look like normal, everyday things that people ask each other. But we have found that subjects' answers to these questions tell us a lot about the quality of their social relationships. The experimenter who will be interviewing you has been trained in special techniques of personal evaluation. When he asks you questions during the upcoming interview, you should answer them as fully as you can. Of course, no matter how you answer, the questions are designed to show us important things about your social relationships. Nonetheless, we would like you to answer directly and honestly.

After admonishing the target not to ask any questions of the interviewer during the interview, the instructions concluded with the following passage:

> Some experimental subjects find that being interviewed with the headphones and microphone makes them nervous. We realize that you might be very nervous at this point, but that's all right. Most people are a bit nervous in this interview situation. This doesn't seem to make any difference in our results. Consequently, don't worry. Do the very best you can.

Interaction. Once the interviewer and target instructions had been delivered, the experimenter signalled the interviewer to begin asking questions of the target. The two participants, each in their separate cubicles, then proceeded with the question-and-answer interview, using the microphone to speak and listening by mean of the headphones.

Social competence ratings. After a period of approximately 10 minutes, the experimenter informed the participants that the interview was over. The interviewer was then asked to complete a questionnaire assessing the target's social competence; the target rated himself on a parallel questionnaire.

Procedure for Observers

Each of the experimental interactions was recorded on a stereo tape machine; since the two participants were in different rooms, it was possible to record the questions of the interviewer on one track of the tape and the answers of the target on the other tape track. The observers, who were unaware of the expectancy manipulation, subsequently listened to these separate-track audio recordings and rated the social competence of the targets from the tapes. Before presentation to the observers, the recordings were edited somewhat to eliminate the voice of the experimenter and any other extraneous noises.

The ratings of the tapes proceeded as follows: The observers first listened to the audio tracks containing only the responses of the target. After each of these target recordings, the observers rated the target's social competence on a questionnaire paralleling the one given to the participants. Unknown to the observers, the tapes were presented in an order that alternated between interviews where the expectancy was negative and those where the expectancy

was positive.

After the ratings of all the target-track tapes were complete, the observers listened to the audio tracks containing only the questions of the interviewers. Once again, the presentation of tapes alternated between interviews with a negative expectancy and those with a positive expectancy. Following each of these interviewer recordings the observers used the same questionnaire to rate again the social competence of the target. It should be emphasized that after listening to an interviewer recording, the observers did not rate the interviewer but rather inferred the social competence of the target from the type of questions asked by the interviewer. Thus, for each interview the observers provided two ratings of the target's social competence: one rating based on the responses of the target and a second rating inferred from the questions of the interviewer.

Dependent Measure

Participants. The questionnaire with which the interviewer assessed the social competence of the target contained four separate scales: The first of these involved rating the target on eight socially-related adjectives (warm, reserved, sociable, introverted, friendly, withdrawn, popular, shy); the second scale consisted of four questions concerning the target's social abilities ("How good do you think he is at socializing with people? getting along with his friends? getting along with the people he meets? How

popular do you think he is?); the third scale was the 20-item Janis-Field measure of social self-esteem (see Robinson & Shaver, 1973, chap. 3) reworded to the third person; and the fourth scale was the 32-item Texas Social Behavior Inventory (TSBI; Helmreich, Stapp, & Ervin, 1974) with the items once again reworded to the third person.

The parallel questionnaire with which the target indicated self-perceptions of his own social competence involved the same four scales; in this case, of course, all the items were worded in the first person.

Preliminary analyses revealed high correlations among the four measures of social competence; therefore, only the two standard measures of social esteem, the Janis-Field and the TSBI, were employed in the following analyses. The 52 items on these two scales were each given equal weight and averaged into a single score that served as the dependent measure. Since each item was rated on a 5-point scale, the resulting mean score could range from 1 to 5, with scoring on some items reversed such that a higher number always indicated a more positive rating. To reduce digits to the right of the decimal, each participant's mean score was multiplied by 10 so that the dependent measure reported in the following results section had a potential range of 10, indicating the lowest level of social competence, to 50, indicating the highest level.

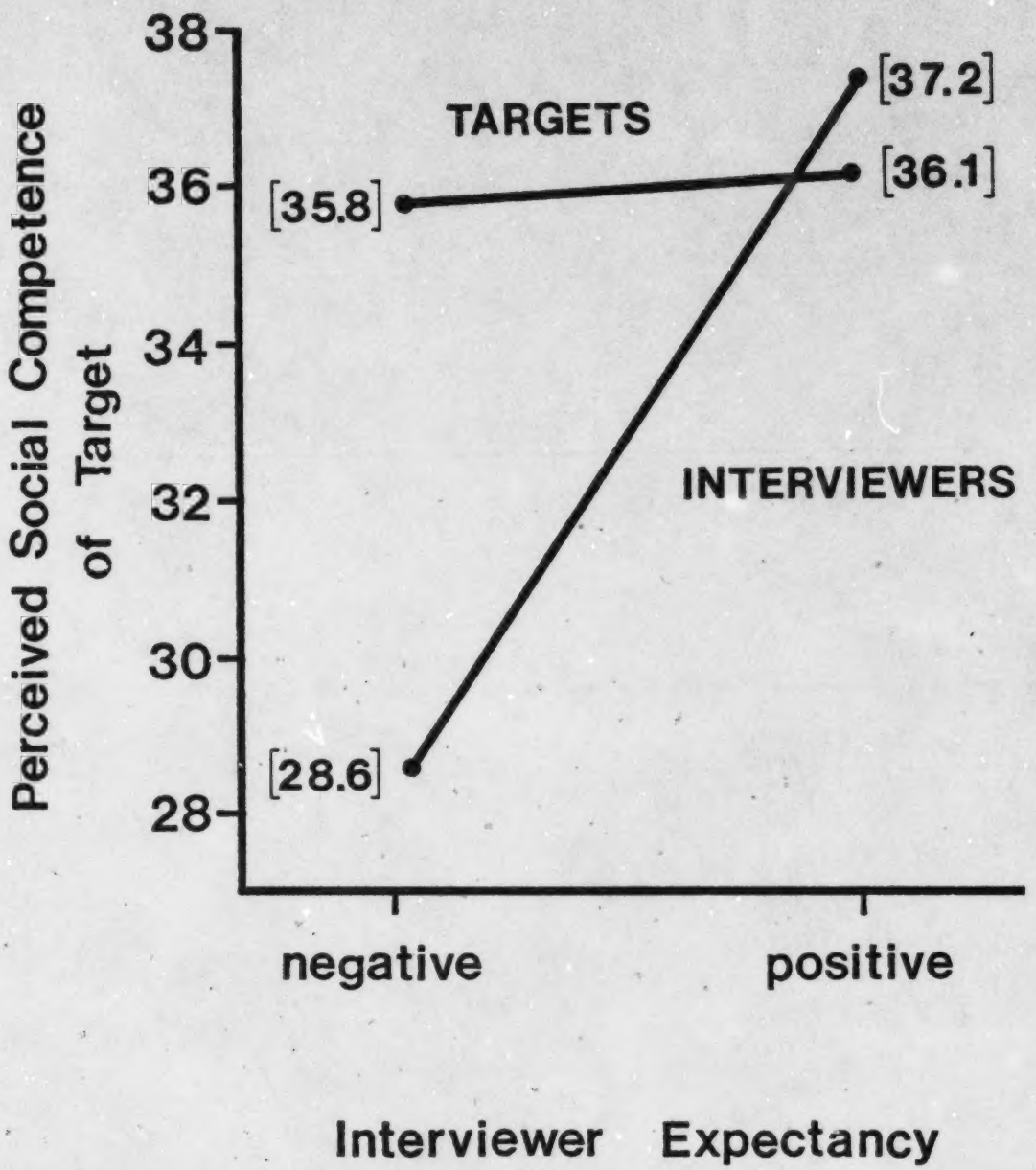
Observers. The questionnaire with which the observers assessed the social competence of the targets contained the 20-item Janis-Field followed by the 32-item TSBI, items on both scales having been reworded to the third person. As with the participant ratings, the 52 items on the two inventories were averaged into a single dependent measure with a potential range of 10, indicating the lowest level of social competence, to 50, indicating the highest level.

Results

The levels of social competence perceived by the participants were examined by means of a condition (negative expectancy/positive expectancy) x role (target/interviewer analysis of variance, where the target-interviewer dyad served as the unit of analysis and role represented a repeated measure. This analysis revealed that, overall, targets viewed themselves as more socially competent than did their interviewers, F (1, 32) = 7.86, p = .008; moreover, ratings from dyads in the positive expectancy condition were higher than ratings from dyads in the negative expectancy condition, F (1, 32) = 15.87, $p < .001$. However, since the interaction between role and condition was also highly significant, F (1, 32) = 14.61, $p < .001$, these main effects should be viewed with considerable caution.

In fact, as can be seen from Figure 1, only in the negative expectancy condition do targets perceive themselves more highly than their interviewers, simple effect F (1, 32) = 21.96, $p < .001$; in the positive condition the ratings of targets and interviewers are at a similar level, simple effect $F < 1$. Even more importantly, it is only the interviewers' perceptions of their targets that change in mean level as a function of the expectancy manipulation, simple effect F (1, 64) = 30.48, $p < .001$,[1] and not the self-perceptions of the targets themselves, simple effect $F < 1$. Thus, although interviewers perceive differences that accord with the expectancy manipulation, targets who interact with these interviewers fail to report similar differences in their self-perceptions.

Given the divergence in perceptions of targets and interviewers, the crucial question is whether targets actually behave differently in the two expectancy conditions, as the interviewer ratings imply, or whether the opinions of the interviewers only reflect their biased expectancies, as the target ratings would suggest. The perceptions of the observers provide a test of these competing possibilities, since these observers listened to the conversations between targets and interviewers but were blind to the expectancy manipulation. The average observer ratings were therefore examined by means of a condition (negative expectancy/positive expectancy) x role (listening to target/listening to interviewer) analysis of variance, where once again the target-interviewer dyad served


Perceived Social Competence of Target
38
36
34
32
30
28
TARGETS
[37.2]
[36.1]
[35.8]
INTERVIEWERS
[28.6]
negative
positive
Interviewer Expectancy

as the unit of analysis and role represented a repeated measure.

Findings from this analysis lend strong support to the interviewer perceptions: The observers agree that targets in the negative expectancy condition had lower levels of social competence (Mn = 31.2) than did targets in the positive expectancy condition (Mn = 33.5), F (1, 32) = 8.45, p = .007. Moreover, the observers report the same differences between targets whether they listen directly to the targets or whether they infer qualities of the targets from the questions asked by the interviewers, interaction $F < 1$. Thus, these results with the observers suggest that the initial expectancy of interviewers is apparent in their behavior toward targets; furthermore, the behavior of the interviewers appears to alter the responses of the targets in such a way as to confirm the originally false beliefs about the target individuals.

While both observers and interviewers perceive the targets differently in the two expectancy conditions, the self-perceptions of targets themselves have appeared, up to this point, to be unaffected by the expectancy manipulation. Further inspection of the data reveals, however, that although the mean level of target self-ratings do not differ in the two expectancy conditions, the variability of target perceptions changes dramatically. Table 1 presents the variance in ratings of both the interaction participants and the observers. As the top row of the table indicates, the variance in target self-ratings is more than five times greater when targets

Table 1

Variance in Ratings of Target's Social Competence

Source of Rating	Interviewer Expectancy: Negative	Interviewer Expectancy: Positive	F-Ratio of Difference in Variance (df = 16, 16)
Participants			
Targets	44.9	8.8	5.11*
Interviewers	13.4	15.7	1.17
Observers			
Listening to Target	18.2	8.3	2.19
Listening to Interviewer	11.8	2.4	4.83*

*$p < .005$.

interact with interviewers having a negative expectancy than when targets interact with interviewers having a positive expectancy. This difference in variability is also reflected in the observer ratings: Observer inferences about the target exhibit almost five times as much variability after the observers listen to an interviewer with a negative expectancy than after they listen to an interviewer with a positive expectancy.[2]

Discussion

What are the components of a self-fulfilling prophecy? The most familiar aspect of the process involves what Snyder (Snyder & Swann, 1978; Snyder et al., 1977) has referred to as "behavioral confirmation." That is, our beliefs inadvertently alter responses to individuals, thereby constraining them to behave in ways that spuriously confirm the original belief. The findings of the present research support earlier demonstrations of this behavioral confirmation process. Thus, in the study targets who interacted with interviewers having a favorable expectancy about them actually behaved in a more positive fashion than did targets who interacted with interviewers holding the opposite, negative expectancy. Moreover, the observers could infer these same differences between the two groups of targets by just listening to the questions of the interviewers, indicating that the interviewers' behavior in some way communicated their belief about the target. In this way, a vicious

cycle can arise in our social interactions: For example, once individuals are assigned a negative social label, such as being mentally ill (cf. Scheff, 1966), they may be channeled in their interactions with others to act in ways that confirm the unfavorable belief about them.

Beyond this occurrence of confirmatory behavior, though, most discussions of the self-fulfilling prophecy assume a further component to the process: According to this additional scenario, targets of a prophecy not only behave in the expected manner but they themselves come to accept and internalize the new image of themselves. This internalization of the prophecy is of considerable significance because without such changes in the target's self-perceptions any new patterns of behavior might be less likely to endure in subsequent situations. The evidence from the present study, however, suggests that if internalization does play a role in the self-fulfilling prophecy, then it may operate in a more complex fashion than has often been supposed. For example, although observers perceived targets in the negative expectancy condition to have acted in a less socially-adept manner than did targets in the positive expectancy condition, the self-report of the targets themselves failed to mirror these behavioral differences. This failure to demonstrate a change in the self-perceptions of the targets is particularly striking in the present study, since the experimental context, where the interviewer was presented as a trained expert, should have

made the targets particularly receptive to influence.

The disparity between the observers' ratings of the targets and the targets' ratings of themselves may stem from the well-documented difference between the way people judge others and the way they judge themselves (cf. Jones & Nisbett, 1971). Observers might be willing to draw personality inferences from a target's behavior in the interview situation, whereas the target, having access to a wider sample of past behaviors, might be much less likely to make similar dispositional inferences. Changes in the self-perceptions of targets may well require repeated interactions over extended periods of time. In any case, it is clear from the present results that when individuals behave in a manner that confirms a belief about them, such behavior does not necessarily imply a corresponding change in their perceptions of themselves.

While our experiment failed to provide a demonstration of the internalization process, its unexpected findings concerning variances suggests that the self-perceptions of the targets were not entirely unaffected by the expectancy of the interviewers. That is, the self-ratings of targets in the negative expectancy condition fluctuated widely, whereas the comparable ratings in the positive expectancy condition were considerably more homogeneous. What might cause the wide fluctuation in self-perceptions when targets are confronted with a negative belief about themselves? One possibility is that some quality of the targets, such as their

prior level of self-esteem, may determine their response to an unfavorable belief. However, another possibility is suggested ly the fact that the interviewers also appear to exhibit greater variability in the negative expectancy condition; thus, the increased variance in the self-ratings of the targets may simply reflect greater variability in the behavior of the interviewers who questioned them. Whatever the actual explanation, these differences in variability raise further questions concerning the precise role that self-perceptions play in the phenomenon of the self-fulfilling prophecy.

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Footnotes

[1]The denominator degrees of freedom for this simple effect was determined by the Satterthwaite approximation (see Winer, 1971, pp. 529-532). Since between-subject and within-subject error terms were of approximately equal size, the correct denominator df reached the upper limit of 64.

[2]The heterogeneity of variances revealed in Table 1 suggest a violation of one of the statistical assumptions underlying the earlier analysis of participant and observer means. To compensate for this problem, the conservative strategy suggested by Box (see Winer, pp. 205-206) is to test all the F-ratios from the preceding analyses of variance with only 1 and 16 degrees of freedom. Fortunately, this conservative procedure does not change any of the conclusions about participant or observer means, since the originally significant F-ratios still exceed the .05 confidence level.